UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,159	10/26/2001	Michael S. Foster	030048039US	3578

25096 7590 10/06/2005

PERKINS COIE LLP
PATENT-SEA
P.O. BOX 1247
SEATTLE, WA 98111-1247

EXAMINER	
SHEW, JOHN	
ART UNIT	**PAPER NUMBER**
2664	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/066,159	FOSTER ET AL.	
	Examiner	Art Unit	
	John L. Shew	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/26/2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-23,66,69,70 and 73* is/are allowed.

6)☒ Claim(s) *24-39,43,45-49,52-62,65,67,68,71,72,74 and 75* is/are rejected.

7)☒ Claim(s) *40-42,44,50-51,63-64* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 October 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *09162005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Page 1 paragraph [0001] line 19 cites "---------- entitled" should be replaced with the associated Patent Application Number.

Page 1 paragraph [0001] line 21 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 1 paragraph [0001] line 23 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 2 paragraph [0001] line 26 cites "---------- entitled" should be replaced with the associated Patent Application Number.

Page 2 paragraph [0001] line 28 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 2 paragraph [0001] line 31 cites "---------- entitled" should be replaced with the associated Patent Application Number.

Page 2 paragraph [0001] line 33 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 2 paragraph [0001] line 36 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 2 paragraph [0001] line 38 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 2 paragraph [0001] line 41 cites "---------- entitled" should be replaced with the associated Patent Application Number.

Page 2 paragraph [0001] line 43 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 2 paragraph [0001] line 45 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 2 paragraph [0001] line 48 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 2 paragraph [0001] line 50 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 2 paragraph [0001] line 52 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 2 paragraph [0001] line 54 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 3 paragraph [0001] line 57 cites "---------- entitled" should be replaced with the associated Patent Application Number.

Page 3 paragraph [0001] line 59 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 3 paragraph [0001] line 62 cites "Application No. --------" should be replaced with the associated Patent Application Number.

Page 25 paragraph [0052] line 6 cites "type of date" should be "type of data".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 59, 60, 61, 62, 65 are rejected under 35 U.S.C. 102(b) as being anticipated by Bernstein et al. (Patent No. 5247516).

Claim 59, Bernstein teaches a computing device for processing received data communications (FIG. 4, col. 11 lines 66-67, col. 12 lines 1-39) referenced by the Endpoint Fast Packet Switch 55 receiving packets via link 82 for processing, comprising a first component capable of receiving data to be communicated through a network to a destination (FIG. 4, FIG. 13) referenced by the source data from PBX 67 to communicated through the Fast Packet Switch network 50 to destination PBX 76

wherein the first component is the TLS 171 of the Endpoint Fast Packet Switch 170, the received data formatted in accordance with a first protocol (col. 1 lines 25-47, col. 2 lines 3-22) referenced by the ATM protocol for fast packet switching, a deconstruction component capable of deconstructing the received data in order to identify portions of the received data (FIG. 5, col. 14 lines 60-65, FIG. 19(b), col. 39 lines 15-29) referenced by the step Start Frame Decomposition to identify the T-slots of the payload section of each frame, and one or more processing components capable of processing the deconstructed data by detecting whether a specified type of content is present in at least some of the identified portions (FIG. 5, FIG. 6(b), FIG. 19(b)) referenced by the step PFC Analysis of the T-slot which specific to a protocol and content, and by determining a destination to which the received data will be communicated if the specified type of content is not detected to be present (FIG. 6(a), col. 18 lines 5-27, FIG. 19(b)) referenced by the step PFC Analysis including the PFC field B bit which set to "0" indicates absence of a T-Slot content followed by the step of Decompose Rec'd Frame Payload and Forward Each Channel to the Appropriate Subscriber which determines the destination of the received data based on content, the determining of the destination by load balancing multiple possible destinations for the received data (col. 6 lines 9-35, col. 22 TABLE IV, FIG. 11(d), col. 30 lines 24-50) referenced by the bandwidth seizing and reconfiguration of the channel assignments to alleviate traffic congestion wherein each channel pertains to a select protocol and destination.

Claim 60, Bernstein teaches one or more processing components are further capable of processing the deconstructed data by classifying a type of at least some of the identified portions of the received data (FIG. 5, FIG. 6(a), FIG. 19(b), FIG. 20, col. 39 lines 30-53) referenced by the PFC Analysis of field A B C bits for determination of the T-slot and channel wherein the select T-Slot is a classification of a data type.

Claim 61, Bernstein teaches the computing device is a multi-protocol node on the network (FIG. 4) referenced by the node EFPS 55 which is multi-protocol in communications with subscribers of TV 74 LAN 75 and PBX 76, and wherein the one or more processing components are further capable of processing the deconstructed data by formatting the received data in accordance with a distinct second protocol (FIG. 5, FIG. 19(b)) referenced by the step Decomposed Rec'd Frame Payload and Forward Each Channel to the Appropriate Subscriber wherein the second protocol is ADPCM for a voice subscriber of a PBX, and by indicating to communicate the data formatted in accordance with the second protocol to the determined destination (FIG. 4) referenced by the forwarding of the ADPCM protocol data from the EFPS 55 to the PBX 76.

Claim 62, Bernstein teaches the first component and the deconstruction component are executing in memory of the computing device (FIG. 3, col. 38 lines 49-67) referenced by the procedure performed in memory on the trunk side or Trunk Line Subsystem 45 of the EFPS 43

Claim 65, Bernstein teaches a computer system for processing received data communications (FIG. 4, col. 11 lines 66-67, col. 12 lines 1-39) referenced by the Endpoint Fast Packet Switch 55 receiving packets via link 82 for processing, comprising means for receiving data to be communicated through a network to a destination (FIG. 4, FIG. 13) referenced by the source data from PBX 67 to communicated through the Fast Packet Switch network 50 to destination PBX 76 wherein the means is the TLS 171 of the Endpoint Fast Packet Switch 170, the received data formatted in accordance with a first protocol (col. 1 lines 25-47, col. 2 lines 3-22) referenced by the ATM protocol for fast packet switching, means for deconstructing the received data in a manner based on the first protocol in order to identify portions of the received data (FIG. 5, col. 14 lines 60-65, FIG. 19(b), col. 39 lines 15-29) referenced by the step Start Frame Decomposition to identify the T-slots of the payload section of each frame, and means for processing the deconstructed data by classifying a type of content included in at least some of the identified portions of the received data (FIG. 5, FIG. 6(b), FIG. 19(b)) referenced by the step PFC Analysis of the T-slot which specific to a protocol and content, detecting whether a specified type of content is present in at least some of the included content (FIG. 6(a), col. 18 lines 5-27, FIG. 19(b)) referenced by the step PFC Analysis including the PFC field B bit which set to "1" indicates presence of a T-Slot content, and when the specified type of content is not detected to be present (FIG. 6(a), col. 18 lines 5-27, FIG. 19(b)) referenced by the step PFC Analysis including the PFC field B bit which set to "0" indicates absence of a T-Slot content, load balancing multiple possible destinations for the received data in order to determine a destination to which

the received data will be communicated (col. 6 lines 9-35, col. 22 TABLE IV, FIG. 11(d), col. 30 lines 24-50) referenced by the bandwidth seizing and reconfiguration of the channel assignments to alleviate traffic congestion wherein each channel pertains to a select protocol and destination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 24, 25, 26, 27, 28, 29, 32, 33, 34, 35, 36, 37, 38, 39, 43,45, 46, 47, 48, 49, 52, 53, 54, 55, 56, 57, 58, 75, 67, 68, 71, 72, 74 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Bernstein (Patent No. 5247516) in view of Dietz et al. (Patent No. 6651099).

Claim 24, Bernstein teaches a method for processing received data communications (FIG. 4, col. 11 lines 66-67, col. 12 lines 1-39) referenced by the Endpoint Fast Packet Switch 55 receiving packets via link 82 for processing, the method comprising receiving data to be communicated through a network to a destination (FIG. 4) referenced by the source data from PBX 67 communicated through the Fast Packet Switch network 50 to destination PBX 76, the received data formatted in accordance with a first protocol (col. 1 lines 25-47, col. 2 lines 3-22) referenced by the ATM protocol for fast packet switching, deconstructing the received data in a manner based on the first protocol in order to identify portions of the received data of interest (FIG. 5, col. 14 lines 60-65, FIG. 19(b), col. 39 lines 15-29) referenced by the Frame Decomposition to identify the T-slots of the payload section of each frame, and processing the deconstructed data by analyzing at least some of the identified portions in order to classify a type of those portions of the received data (FIG. 6(a), FIG. 19(b), FIG. 20, col. 39 lines 30-53) referenced by the PFC Analysis of field A B C bits for determination of the T-slot and channel, analyzing contents included in at least some of the identified portions in order to determine whether a specified type of content is present (FIG. 5, FIG. 6(b), FIG. 19(b)) referenced by the PFC Analysis of the T-slot which specific to a protocol and content, determining the destination for the received data in a manner so as to load balance multiple possible destinations (col. 6 lines 9-35, col. 22 TABLE IV, FIG. 11(d),

col. 30 lines 24-50) referenced by the bandwidth seizing and reconfiguration of the channel assignments to alleviate traffic congestion wherein each channel pertains to a select protocol and destination. Bernstein does not teach a computer.
Dietz teaches a computer-implemented method (FIG. 15, col. 28 lines 38-55) referenced by the Host Processor 1504 implementing instructions from a host memory 1506.
It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the apparatus for monitoring network traffic of Dietz to the method of transmitting composite data frame of Bernstein for the purpose of examining packets passing through a connection point on a computer network wherein each packet conforms to one or more protocols as suggested by Dietz (Abstract lines 1-3).

Claim 25, Bernstein teaches the first protocol is a data link layer network protocol (FIG. 6(a), FIG. 6(b)), col. 17 lines 9-18) referenced by the use of an ATM scheme which is a data link layer protocol.

Claim 26, Bernstein teaches a method of transmitting composite data frame. Bernstein does not teach the first protocol is a network layer network protocol.
Dietz teaches a first protocol is a network layer network protocol (FIG. 1, FIG. 17A, Fig. 17B, col. 8 lines 30-37) referenced by the Ethernet IP packets used for network data communications which is a network layer protocol.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the apparatus for monitoring IP network traffic of Dietz to the method of transmitting composite data frame of Bernstein for the purpose of examining packets passing through a connection point on a computer network wherein each packet conforms to one or more protocols as suggested by Dietz (Abstract lines 1-3).

Claim 27, Bernstein teaches a method of transmitting composite data frame. Bernstein does not teach the first protocol is a transport layer network protocol.
Dietz teaches a first protocol is a transport layer network protocol (FIG. 1, col. 9 lines12-14) referenced by the use of TCP to maintain the required network communications.
It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the apparatus for monitoring TCP/IP network traffic of Dietz to the method of transmitting composite data frame of Bernstein for the purpose of examining packets passing through a connection point on a computer network wherein each packet conforms to one or more protocols as suggested by Dietz (Abstract lines 1-3).

Claim 28, Bernstein teaches a method of transmitting composite data frame. Bernstein does not teach the first protocol is an applicationt layer network protocol.
Dietz teaches a first protocol is an application layer network protocol (FIG. 1, col. 9 lines12-27) referenced by the use of application session layer protocols for communications over the network.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the apparatus for monitoring application network traffic of Dietz to the method of transmitting composite data frame of Bernstein for the purpose of examining packets passing through a connection point on a computer network wherein each packet conforms to one or more protocols as suggested by Dietz (Abstract lines 1-3).

Claim 29, Bernstein teaches the first protocol is a bus protocol (FIG. 2, col. 10 lines 21-36) referenced by the use Subscriber Processing Unit 28 communicating with the Universal Control Unit 27 over system bus 30 wherein the protocol is thus a bus protocol.

Claim 32, Bernstein teaches wherein the received data is a data frame or a data packet (FIG. 5, col. 8 lines 55-59) referenced by the data frame, and wherein the identified portions of the received data include a header portion of the received data (FIG. 5, col. 14 lines 23-28) referenced by the header 92.

Claim 33, Bernstein teaches wherein the received data is a data frame or a data packet (FIG. 5, col. 8 lines 55-59) referenced by the data frame, and wherein the identified portions of the received data include a payload portion of the received data (FIG. 5, col. 14 lines 23-28) referenced by the payload 93.

Claim 34, Bernstein teaches wherein the identified portions of the received data include entries in a header portion of the received data (FIG. 6(a), col. 18 lines 5-12) referenced by the Prioritized Flow Control field of the header which contains entries for T-slot information.

Claim 35, Bernstein teaches wherein the identified portions of the received data include portions of a payload of the received data (FIG. 5, col. 14 lines 23-36, lines 60-65) referenced by the payload section which is composed of T-slots representing different traffic component portions.

Claim 36, Bernstein teaches wherein the deconstructing of the received data is performed only a single time (FIG. 19(b), col. 39 lines 15-29) referenced by the Start Frame Decomposition step which is performed only once.

Claim 37, Bernstein teaches communicating the received data to the destination (FIG. 4, col. 12 lines 7-22) referenced by the EFPS 55 sending the data to the final destination PBX 76.

Claim 38, Bernstein teaches determining a virtual identifier that corresponds to a path through the network to the destination and that will be used to route the received data through the network to the destionation (FIG. 6(a), col. 17 lines 30-55) referenced by the Virtual Path ID field used to route a Virtual Circuit Path to traverse a given link.

Claim 39, Bernstein teaches wherein the classifying of the type of the identified portions of the received data includes classifying those identified portions in a manner based on an application layer protocol used to format the data of those identified portions (Abstract lines 1-6, FIG. 5, col. 14 lines 60-65, FIG. 19(a), col. 38 lines 16-22) referenced by the Select T-Slot X step being a classification of the data format types X.25 ADPCM or SDLC which corresponds to application layers data voice and video.

Claim 43, Bernstein teaches the analyzing of the contents included in the identified portions includes determining whether at least some of the identified portions do not include required content (FIG. 6(a), col. 18 lines 5-27) referenced by the analysis of the Prioritized Flow Control field for the B bits which when set to "0" identify T-slots which are absent and therefore do not include required content.

Claim 45, Bernstein teaches the processing of the deconstructed data includes formatting the received data in accordance with a distinct second protocol (FIG. 5, FIG. 19(b)) referenced by the step Decomposed Rec'd Frame Payload and Forward Each Channel to the Appropriate Subscriber wherein the second protocol is ADPCM for a voice subscriber of a PBX.

Claim 46, Bernstein teaches the analyzing of the contents included in the identified portions is performed in a manner based at least in part on the classified type of those

identified portions (FIG. 5, FIG. 19(b), col. 39 lines 15-23) referenced by the step PFC Analysis: Offset Starting Bits For Each T-Slot where each T-slot is a classified data type consisting of X.25 ADPCM and SDLC.

Claim 47, Bernstein teaches the analyzing of the identified portions in order to classify the type of those portions is performed in a manner based at least in part on the determination of whether the specified type of content is present (FIG. 6(a), col. 18 lines 5-20, FIG. 19(b)) referenced by the step PFC Analysis where the PFC field B bit is examined and if set to "0" indicates that the select T-Slot data is not present.

Claim 48, Bernstein teaches the determining of the destination is additionally performed in a manner based at least in part on the classified types of the analyzed identified portions (FIG. 5, FIG. 19(b), col. 39 lines 15-29) referenced by the step Decompose Rec'd Frame Payload and Forward Each Channel to the Appropriate Subscriber where the classified types of T-Slots is additionally decomposed into channels for transmission to the proper subscriber port.

Claim 49, Bernstein teaches the determining of the destination is additionally performed in a manner based at least in part on the determination of whether the specified type of content is present (FIG. 6(a), col. 18 lines 5-20, FIG. 19(b), col. 39 lines 15-29) referenced by the step PFC Analysis wherein the PFC B bit set to "1" indicates that the T-Slot Content is present followed by the step Decompose Rec'd Frame Payload and

Forward Each Channel to the Appropriate Subscriber wherein the additional step of determining the channel to the proper subscriber port.

Claim 52, Bernstein teaches the method is performed by a multi-protocol edge switch connected to at least two networks that each use distinct protocols (FIG. 4, col. 11 lines 66-67, col. 12 lines 1-22, FIG. 5) referenced by the Endpoint Fast Packet Switch 55 which uses ATM protocol for the Fast Packet Switch network 50 and ADPCM protocol for the PBX network 76.

Claim 53, Bernstein teaches a method for processing received data communications (FIG. 4, col. 11 lines 66-67, col. 12 lines 1-39) referenced by the Endpoint Fast Packet Switch 55 receiving packets via link 82 for processing, by performing a method comprising receiving data to be communication through a network to a destination (FIG. 4) referenced by the source data from PBX 67 to communicated through the Fast Packet Switch network 50 to destination PBX 76, the received data formatted in accordance with a first protocol (col. 1 lines 25-47, col. 2 lines 3-22) referenced by the ATM protocol for fast packet switching, deconstructing the received data in order to identify portions of the received data (FIG. 5, col. 14 lines 60-65, FIG. 19(b), col. 39 lines 15-29) referenced by the Frame Decomposition to identify the T-slots of the payload section of each frame, and processing the deconstructed data by detecting whether a specified type of content is present in at least some of the identified portions (FIG. 6(a), FIG. 19(b), FIG. 20, col. 39 lines 30-53) referenced by the PFC Analysis of

field A B C bits for determination of the T-slot and channel, and when the specified type of content is not detected to be present, (FIG. 6(a), col. 18 lines 5-20, FIG. 19(b)) referenced by the step PFC Analysis wherein the PFC field B bit is set to "0" to indicate the absence of a select T-Slot, load balancing multiple possible destinations for the received data in order to determine a destination to which the received data will be communicated (col. 6 lines 9-35, col. 22 TABLE IV, FIG. 11(d), col. 30 lines 24-50) referenced by the bandwidth seizing and reconfiguration of the channel assignments to alleviate traffic congestion wherein each channel pertains to a select protocol and destination. Bernstein does not teach a computer-readable medium.

Dietz teaches a computer-readable medium whose contents cause a computing device to implement a process (FIG. 15, col. 28 lines 38-55) referenced by the Host Processor 1504 implementing instructions from a computer-readable medium of a host memory 1506.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the apparatus for monitoring network traffic of Dietz to the method of transmitting composite data frame of Bernstein for the purpose of examining packets passing through a connection point on a computer network wherein each packet conforms to one or more protocols as suggested by Dietz (Abstract lines 1-3).

Claim 54, Bernstein teaches a method of transmitting composite data frame. Bernstein does not teach a computer-readable medium is a memory of a computer system.

Dietz teaches a computer-readable medium is a memory of a computer system (FIG. 15, col. 28 lines 38-55) referenced by the Host Processor 1504 implementing instructions from a computer-readable medium of a host memory 1506.
It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the apparatus for monitoring network traffic of Dietz to the method of transmitting composite data frame of Bernstein for the purpose of examining packets passing through a connection point on a computer network wherein each packet conforms to one or more protocols as suggested by Dietz (Abstract lines 1-3).

Claim 55, Bernstein teaches a method of transmitting composite data frame. Bernstein does not teach a computer-readable medium is a data transmission medium transmitting a generated data signal containing the contents.
Dietz teaches a computer-readable medium is a data transmission medium transmitting a generated data signal containing the contents.
(FIG. 15, col. 28 lines 38-55) referenced by the Host Processor 1504 implementing instructions from a computer-readable medium of a host memory 1506 via the connection between the two units.
It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the apparatus for monitoring network traffic of Dietz to the method of transmitting composite data frame of Bernstein for the purpose of examining packets passing through a connection point on a computer network wherein each packet conforms to one or more protocols as suggested by Dietz (Abstract lines 1-3).

Claim 56, Bernstein teaches the processing of the deconstructed data further includes classifying a type of at least some of the identified portions of the received data (Abstract lines 1-6, FIG. 5, col. 14 lines 60-65, FIG. 19(a), col. 38 lines 16-22) referenced by the Select T-Slot X step being a classification of the data format types X.25 ADPCM or SDLC.

Claim 57, Bernstein teaches the processing of the deconstructed data further includes formatting the received data in accordance with a distinct second protocol (FIG. 5, FIG. 19(b)) referenced by the step Decomposed Rec'd Frame Payload and Forward Each Channel to the Appropriate Subscriber wherein the second protocol is ADPCM for a voice subscriber of a PBX, and indicating to communicate to the determined destination the data formatted in accordance with the second protocol (FIG. 4) referenced by the forwarding of the ADPCM protocol data from the EFPS 55 to the PBX 76.

Claim 58, Bernstein teaches wherein the deconstructing of the received data is performed only a single time (FIG. 19(b), col. 39 lines 15-29) referenced by the Start Frame Decomposition step which is performed only once.

Claim 75, Bernstein teaches a method of transmitting composite data frame. Bernstein does not teach a computer-readable medium wherein the contents are instructions that when executed cause the computing device to perform the method.

Dietz teaches a computer-readable medium is wherein the contents are instructions that when executed cause the computing device to perform the method (FIG. 15, col. 28 lines 38-55) referenced by the Host Processor 1504 implementing instructions from a computer-readable medium of a host memory 1506 via the connection between the two units.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the apparatus for monitoring network traffic of Dietz to the method of transmitting composite data frame of Bernstein for the purpose of examining packets passing through a connection point on a computer network wherein each packet conforms to one or more protocols as suggested by Dietz (Abstract lines 1-3).

Claim 67, Bernstein teaches a method for processing received data communications (FIG. 4, col. 11 lines 66-67, col. 12 lines 1-39) referenced by the Endpoint Fast Packet Switch 55 receiving packets via link 82 for processing, the method comprising receiving data to be communicated through a network to a destination (FIG. 4) referenced by the source data from PBX 67 communicated through the Fast Packet Switch network 50 to destination PBX 76, the received data formatted in accordance with a first protocol (col. 1 lines 25-47, col. 2 lines 3-22) referenced by the ATM protocol for fast packet switching, deconstructing the received data in a manner based on the first protocol in order to identify portions of the received data (FIG. 5, col. 14 lines 60-65, FIG. 19(b), col. 39 lines 15-29) referenced by the Frame Decomposition to identify the T-slots of the payload section of each frame, and processing the deconstructed data by classifying a

type of at least some of the identified portions (FIG. 6(a), FIG. 19(b), FIG. 20, col. 39 lines 30-53) referenced by the PFC Analysis of field A B C bits for determination of the T-slot classification representative of data types, constructing a new group of data that is formatted in accordance with a distinct second protocol to be communicated to the destination (FIG. 4, FIG. 5, FIG. 19(b)) referenced by the step Decompose Rec'd Frame Payload and Forward Each Channel to the Appropriate Subscriber wherein the payload T-Slot is constructed in accordance to the distinct second ADPCM protocol for forwarding to the destination PBX and further the channels of the T-Slot represent a group of data all constructed to the ADPCM protocol, the constructing based at least in part on the classifying (FIG. 5) referenced by the classification of T-Slot 2 to ADPCM data. Bernstein does not teach a computer.

Dietz teaches a computer-implemented method (FIG. 15, col. 28 lines 38-55) referenced by the Host Processor 1504 implementing instructions from a host memory 1506.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the apparatus for monitoring network traffic of Dietz to the method of transmitting composite data frame of Bernstein for the purpose of examining packets passing through a connection point on a computer network wherein each packet conforms to one or more protocols as suggested by Dietz (Abstract lines 1-3).

Claim 68, Bernstein teaches a method for processing received data communications (FIG. 4, col. 11 lines 66-67, col. 12 lines 1-39) referenced by the Endpoint Fast Packet

Switch 55 receiving packets via link 82 for processing, the method comprising receiving data to be communicated through a network to a destination (FIG. 4) referenced by the source data from PBX 67 communicated through the Fast Packet Switch network 50 to destination PBX 76, the received data formatted in accordance with a first protocol (col. 1 lines 25-47, col. 2 lines 3-22) referenced by the ATM protocol for fast packet switching, deconstructing the received data in a manner based on the first protocol in order to identify portions of the received data (FIG. 5, col. 14 lines 60-65, FIG. 19(b), col. 39 lines 15-29) referenced by the Frame Decomposition to identify the T-slots of the payload section of each frame, and processing the deconstructed data by classifying a type of at least some of the identified portions (FIG. 6(a), FIG. 19(b), FIG. 20, col. 39 lines 30-53) referenced by the PFC Analysis of field A B C bits for determination of the T-slot classification representative of data types, and formatting the received data in accordance with a distinct second protocol (FIG. 4, FIG. 5, FIG. 19(b)) referenced by the step Decompose Rec'd Frame Payload and Forward Each Channel to the Appropriate Subscriber wherein the payload T-Slot is decomposed and formatted in accordance to the distinct second ADPCM protocol for forwarding to the destination PBX, the data formatted with the second protocol to be transmitted to the destination in a manner based at east in part on the classifying (FIG. 4, FIG. 5) referenced by the T-Slot number 2 classification for ADPCM protocol for voice transmission to subscriber PBX 76. Bernstein does not teach a computer.

Dietz teaches a computer-implemented method (FIG. 15, col. 28 lines 38-55) referenced by the Host Processor 1504 implementing instructions from a host memory 1506.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the apparatus for monitoring network traffic of Dietz to the method of transmitting composite data frame of Bernstein for the purpose of examining packets passing through a connection point on a computer network wherein each packet conforms to one or more protocols as suggested by Dietz (Abstract lines 1-3).

Claim 71, Bernstein teaches a method for processing received data communications (FIG. 4, col. 11 lines 66-67, col. 12 lines 1-39) referenced by the Endpoint Fast Packet Switch 55 receiving packets via link 82 for processing, the method comprising receiving data to be communicated through a network to a destination (FIG. 4) referenced by the source data from PBX 67 communicated through the Fast Packet Switch network 50 to destination PBX 76, the received data formatted in accordance with a first protocol (col. 1 lines 25-47, col. 2 lines 3-22) referenced by the ATM protocol for fast packet switching, deconstructing the received data in a manner based on the first protocol in order to identify portions of the received data (FIG. 5, col. 14 lines 60-65, FIG. 19(b), col. 39 lines 15-29) referenced by the Frame Decomposition to identify the T-slots of the payload section of each frame, and processing the deconstructed data by classifying a type of at least some of the identified portions (FIG. 6(a), FIG. 19(b), FIG. 20, col. 39 lines 30-53) referenced by the PFC Analysis of field A B C bits for determination of the

T-slot classification representative of data types, load balancing multiple possible destinations for the received data in order to determine a destination to which the received data will be communicated (col. 6 lines 9-35, col. 22 TABLE IV, FIG. 11(d), col. 30 lines 24-50) referenced by the bandwidth seizing and reconfiguration of the channel assignments to alleviate traffic congestion wherein each channel pertains to a select protocol and destination, formatting the received data using a distinct second protocol that corresponds to the determined destination (FIG. 4, FIG. 5, FIG. 19(b)) referenced by the step Decompose Rec'd Frame Payload and Forward Each Channel to the Appropriate Subscriber wherein the payload T-Slot is decomposed and formatted in accordance to the distinct second ADPCM protocol for forwarding to the destination PBX. Bernstein does not teach a computer.

Dietz teaches a computer-implemented method (FIG. 15, col. 28 lines 38-55) referenced by the Host Processor 1504 implementing instructions from a host memory 1506.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the apparatus for monitoring network traffic of Dietz to the method of transmitting composite data frame of Bernstein for the purpose of examining packets passing through a connection point on a computer network wherein each packet conforms to one or more protocols as suggested by Dietz (Abstract lines 1-3).

Claim 72, Bernstein teaches a method for processing received data communications (FIG. 4, col. 11 lines 66-67, col. 12 lines 1-39) referenced by the Endpoint Fast Packet

Switch 55 receiving packets via link 82 for processing, the method comprising receiving data to be communicated through a network to a destination (FIG. 4) referenced by the source data from PBX 67 communicated through the Fast Packet Switch network 50 to destination PBX 76, the received data formatted in accordance with a first protocol (col. 1 lines 25-47, col. 2 lines 3-22) referenced by the ATM protocol for fast packet switching, deconstructing the received data in a manner based on the first protocol in order to identify portions of the received data (FIG. 5, col. 14 lines 60-65, FIG. 19(b), col. 39 lines 15-29) referenced by the Frame Decomposition to identify the T-slots of the payload section of each frame, and processing the deconstructed data by classifying a type of at least some of the identified portions (FIG. 6(a), FIG. 19(b), FIG. 20, col. 39 lines 30-53) referenced by the PFC Analysis of field A B C bits for determination of the T-slot classification representative of data types, determining whether a specified type of content is present in at least some of the identified portions (FIG. 6(a), col. 18 lines 5-27, FIG. 19(b)) referenced by the step PFC Analysis including the PFC field B bit which set to "1" indicates presence of a T-Slot content, and when the specified type of content is not detected to be present formatting the received data in accordance with a distinct second protocol (FIG. 6(a), col. 18 lines 5-27, FIG. 19(b)) referenced by the step PFC Analysis including the PFC field B bit which set to "0" indicates absence of a T-Slot content followed by the step of Decompose Rec'd Frame Payload and Forward Each Channel to the Appropriate Subscriber which determines the destination of the received data based on content type including X.25 SDLC. Bernstein does not teach a computer.

Dietz teaches a computer-implemented method (FIG. 15, col. 28 lines 38-55) referenced by the Host Processor 1504 implementing instructions from a host memory 1506.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the apparatus for monitoring network traffic of Dietz to the method of transmitting composite data frame of Bernstein for the purpose of examining packets passing through a connection point on a computer network wherein each packet conforms to one or more protocols as suggested by Dietz (Abstract lines 1-3).

Claim 74, Bernstein teaches a method for processing received data communications (FIG. 4, col. 11 lines 66-67, col. 12 lines 1-39) referenced by the Endpoint Fast Packet Switch 55 receiving packets via link 82 for processing, the method comprising receiving data to be communicated through a network to a destination (FIG. 4) referenced by the source data from PBX 67 communicated through the Fast Packet Switch network 50 to destination PBX 76, the received data formatted in accordance with a first protocol (col. 1 lines 25-47, col. 2 lines 3-22) referenced by the ATM protocol for fast packet switching, deconstructing the received data in a manner based on the first protocol in order to identify portions of the received data (FIG. 5, col. 14 lines 60-65, FIG. 19(b), col. 39 lines 15-29) referenced by the Frame Decomposition to identify the T-slots of the payload section of each frame, processing the deconstructed data by classifying a type of content included at least some of the identified portions (FIG. 6(a), FIG. 19(b), FIG. 20, col. 39 lines 30-53) referenced by the PFC Analysis of field A B C bits for

determination of the T-slot classification representative of data types, analyzing the content included in at least some of the identified portions (FIG. 6(a), FIG. 19(b), FIG. 20, col. 39 lines 30-53) referenced by the PFC Analysis of field A B C bits, determining a destination for the received data in such a manner as to load balance multiple possible destinations (col. 6 lines 9-35, col. 22 TABLE IV, FIG. 11(d), col. 30 lines 24-50) referenced by the bandwidth seizing and reconfiguration of the channel assignments to alleviate traffic congestion wherein each channel pertains to a select protocol and destination, and constructing a new group of data that is formatted using a distinct second protocol (FIG. 4, FIG. 5, FIG. 19(b)) referenced by the step Decompose Rec'd Frame Payload and Forward Each Channel to the Appropriate Subscriber wherein the payload T-Slot is constructed in accordance to the distinct second ADPCM protocol for forwarding to the destination PBX and further the channels of the T-Slot represent a group of data all constructed to the ADPCM protocol, and transmitting the constructed new group of data to the determined destination (FIG. 5, FIG. 19(b)) referenced by the step Decompose Rec'd Frame Payload and Forward Each Channel to the Appropriate Subscriber wherein the channel groups of data are forwarded to the appropriate destination subscriber. Bernstein does not teach a computer.

Dietz teaches a computer-implemented method (FIG. 15, col. 28 lines 38-55) referenced by the Host Processor 1504 implementing instructions from a host memory 1506.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the apparatus for monitoring network traffic of Dietz to the

method of transmitting composite data frame of Bernstein for the purpose of examining packets passing through a connection point on a computer network wherein each packet conforms to one or more protocols as suggested by Dietz (Abstract lines 1-3).

4. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bernstein and Dietz as applied to claim 24 above, and further in view of Hardwick et al. (Patent No. 5550816).

Claim 30, Bernstein and Dietz teach a computer system for transmitting a configurable composite data frame. They do not teach the first protocol is Fibre Channel.
Hardwick teaches a first protocol is Fibre Channel (FIG. 2, col. 23 lines 14-43) referenced by the use of FDDI on the data interface 112.
It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate virtual switching apparatus of Hardwick to the method of transmitting and monitoring composite data frame of Bernstein and Dietz for the purpose of including a decision mechanism for determining an associated directive based on a destination identifier within a particular packet as suggested by Hardwick (Abstract lines 5-8).

5. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bernstein and Dietz as applied to claim 24 above, and further in view of Pettey (Pub. No. US 2003/0014544).

Claim 31, Bernstein and Dietz teach a computer system for transmitting a configurable composite data frame. They do not teach the first protocol is InfiniBand.
Pettey teaches a first protocol is InfiniBand (Fig. 4, Abstract lines 1-6) referenced by the interconnection of servers are through an Infiniband fabric.
It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Infiniband work queue of Pettey to the method of transmitting and monitoring composite data frame of Bernstein and Dietz for the purpose of offloading TCP/IP processing as suggested by Pettey (Abstract lines 1-2).

Allowable Subject Matter

6. Claims 1-23, 66, 69, 70, 73 are allowed.

Claims 40-42, 44, 50, 51, 63, 64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L. Shew whose telephone number is 571-272-3137. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

js

WELLINGTON CHIN
RVISORY PATENT EXAMIN